

Lessons Learned about Lessons Learned from Flight Testing of Boeing Commercial Airplanes

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Since 1999, the Flight Test Engineering organization within Boeing Test & Evaluation in Seattle has had a process to capture lessons associated with ground and flight testing of commercial airplanes. The process started slowly and crudely, using email and/or paper forms to capture lessons, with manual classification and publishing of lessons in an html file, and with only part-time management by a few individuals on a time-available basis. No specific resources were available to develop tools or processes. As lessons accumulated, it became clear that to best take advantage of captured lessons, better awareness and participation was needed by the organization, the tools associated with lessons had to be easier to use, a standardized workflow had to be created and communicated, and a process was needed to drive lessons back into daily work processes (where possible) to help institutionalize the learning. That required management support for additional resources to develop better tools, develop a standardized work flow, and to charter a team that had the responsibility to develop and manage the Lessons Learned repository, process, and tools.

Our lessons learned about lessons learned are that to better capture and take advantage of lessons revealed during ground and flight testing, we needed the following process elements:

- Appropriately designed tools to easily capture and manage lessons
(email to an inbox can become a bottleneck)
- A Lessons Learned Team tasked with managing lessons through their lifecycle, from capture to retirement
(capture alone is not enough; active management of content is critical to providing value and driving lessons back into daily work processes)
- Well defined workflow for contributors and the team to follow
(to standardize the process and make it easy to use)
- Data structures and search criteria that facilitate finding information of interest
(to avoid the black hole repository)
- Management support to:
 - Underscore the importance of the lessons learned process and encourage participation
 - Charter and support the Lessons Learned Team
 - Sponsor tool development
 - Encourage daily work process changes that will incorporate lessons learned